

Abstract

An air dam is made of flexible cells installed adjacent to one another so that the air dam is capable of installation in many deflecting configurations on a vehicle and can also deflect under impact. The air dam system may be capable of being deployed at higher speeds while being stowed under the frame of the truck when the truck is operating on rough road surfaces to reduce the potential for air dam damage. The air dam system can be actuated pneumatically and when deployed tends to reduce aerodynamic drag by altering the path of airflow under and/or immediately around a vehicle. Other methods of actuation such as hydraulic or mechanical components may also be used with the air dam system. Alternatively, the air dam cells may be stationary and include an inflated bladder and/or flexible sleeve mounted adjacent to one another on an air dam frame.